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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Graham Frederick Williams

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EXAMINER

JOYNER, KEVIN

ART UNIT

PAPER NUMBER

1797

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,927	Applicant(s) WILLIAMS, GRAHAM FREDERICK	
	Examiner KEVIN C. JOYNER	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/11/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-13 in the reply filed on May 16, 2008 is acknowledged. The traversal is on the ground(s) that both claim groups can be searched without undue burden. This is not found persuasive because the application is subject to PCT Rules 13.1 and 13.2 wherein the groups must relate to a general inventive concept comprising the same special technical feature. A special technical feature is defined as a feature that is claimed by both groups that makes a contribution over the prior art. As noted in the Office Action filed on April 22, 2008, Plester (WO 01/12559) discloses this concept in Figure 1 as well as on pages 8-13, wherein the heat exchanger (18) is fully capable of heating the treated water in the reservoir (26) to steam and allow it to flow in the reverse direction through the apparatus.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 13 and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 16, 2008.

Specification

The specification of the instant application is missing certain portions as bolded

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below in accordance with the MPEP.

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) **Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.**
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet

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published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Objections

3. Claim 13 is objected to because of the following informalities: It appears as though a typographical error has occurred wherein the Applicant omitted the word “apparatus” between the words “treatment” and “according”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-9, 10, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plester (WO 01/12559) in view of Fermaglich (U.S. Patent No. 4,518,503).

Plester discloses a water treatment apparatus comprising a treatment housing 114 comprising a filter 150 for treating water, the housing being connected to a reservoir 121 for receiving treated water from the housing, controls (Figure 7) capable of stopping

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and starting flow of the water to be treated through the housing and a relief valve (page 13, lines 14-15) for escape of steam located in the housing in pages 16-20. It is noted that the valve means 3 of Plester allows gases to escape from the housing 114 and therefore acts to relieve a pressure in said housing. Although Plester continues to disclose a heat exchanger 18 that is in direct communication with the reservoir 121 that is capable of heating the treated water to steam and directing said steam in the reverse direction to the water, Plester does not appear to disclose that the reservoir contains a heater that is capable of heating the treated water to generate steam, wherein the steam is capable of passing through the apparatus in the reverse direction to the water. Fermaglich discloses a water treatment apparatus for the purification of water that comprises a housing 24 for treating the water, the housing being connected to a reservoir 14, which is a small secondary tank for a separate larger reservoir 20 downstream of the tank (concerning claim 10; Figure 2) for receiving the treated water from the housing, the reservoir 14 containing a heater 50 to heat the treated water to generate steam, wherein the steam is fully capable of being passed through the apparatus in the reverse direction to the water to sterilize said apparatus (column 4, lines 15-68; column 5, lines 30-65). More specifically, closing valve 30 would allow the heater to vaporize the treated water in a manner to create a pressure that is capable of causing the steam to travel in a directional flow back through housing 24 and out of the apparatus through valve 36 (Fermaglich specifically discloses that aperture 21 is not sufficiently large enough to lower the amount of backpressure created by vaporizing the treated water to steam; column 10, lines 20-30). The heater is provided in the reservoir

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to create a backpressure and move the fluids of Fermaglich from the reservoir back in to the housing and through a filter 12 in order to enhance the purification of the water (column 5, lines 43-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Plester to include a heater located in the reservoir in order to create a steam in said reservoir that produces a pressure to move the fluids from the reservoir back in to the housing and through the filter in order to enhance the purification of the water as exemplified by Fermaglich.

Regarding claim 3, Plester continues to disclose that the housing is a disposable cartridge (page 16, line 34). Concerning claim 4, the reference discloses that the housing comprises a heater 144 and a filter 150 between the heater and an outlet from the housing for the treated water as shown in Figure 6. Regarding claim 5, the reference also discloses that the apparatus contains one or more screens between the heater and the filter (page 17, lines 19-22). Concerning claim 6, Plester discloses that the housing has a probe to detect the water level and the apparatus controls are arranged to switch off incoming water when a predetermined maximum water level is reached, the maximum level leaving a headspace in the housing above the water (page 18, lines 7-11; page 21, lines 3-14). Regarding claim 7, the relief valve of Plester is fully capable of allowing steam and volatiles from the headspace to escape (page 18, lines 1-5).

Concerning claim 8, Plester discloses a heat exchanger connected to an inlet to the treatment housing whereby untreated water can be passed through the heat exchanger on its way to the treatment housing, the heat exchanger being also

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connected to an outlet from the treatment housing whereby heated treated water can be passed through the heat exchanger in heat exchange relationship with the incoming untreated water (as best shown in Figure 1; pages 16-20). It is noted that the apparatus in Figure 1 is substantially analogous to the apparatus in Figure 6 and operates in the same manner with respect to the limitations as previously disclosed. Regarding claim 11, the controls of Plester is fully capable of switching on the reservoir heater at the same time of or shortly after flow of untreated water into the housing is stopped. Furthermore, Fermaglich discloses this limitation in column 5, lines 29-40. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to turn on the reservoir heater at the same time as the time in which the flow of untreated water is stopped in order to provide an automatic and continuous process as exemplified by Fermaglich. Regarding claim 13, Plester continues to disclose that the relief valve leads to a condenser tube 39 and a drain 40.

Claim 9 further requires that the heater have a wattage from 1500 to 2500. Although Plester in view of Fermaglich does not appear to disclose this limitation, it would have been well within the purview of one of ordinary skill in the art to optimize the wattage of the heater in order to maximize the efficiency of the sterilization process. Only the expected results would be attained. Furthermore, regarding the limitations of the size of the reservoir with regard to claim 9, in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. Denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device

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having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Accordingly, the claimed dimensions of the reservoir are considered to be not patentably distinct from the disclosed device of Plester in view of Fermaglich (See MPEP 2144.04).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plester (WO 01/12559) in view of Fermaglich (U.S. Patent No. 4,518,503) as applied to claim 1 above, and further in view of Forsberg et al. (U.S. Patent No. 7,089,763).

Plester in view of Fermaglich is relied upon as set forth above. Plester in view of Fermaglich does not appear to disclose that the reservoir is made of a metal or plastic that can withstand a pressure of at least one bar and a temperature up to 120 degrees Celsius. However, it is conventionally well known to store purified water in a reservoir that is made from a material that can withstand a pressure of at least one bar and a temperature up to 120 degrees Celsius such as stainless steel. Forsberg discloses a water treatment apparatus comprising a housing with a heater and a reservoir for storing treated water as shown in Figure 1. The reference continues to disclose that the reservoir is made from stainless steel as such is a common material to store treated water (column 25, lines 1-10). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to comprise the reservoir of Plester from a material that is capable of withstanding pressure of at least one bar and a temperature up to 120 degrees Celsius such as stainless steel, as such is a common material to store treated water as exemplified by Forsberg.

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7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plester (WO 01/12559) in view of Fermaglich (U.S. Patent No. 4,518,503) as applied to claim 1 above, and further in view of Arnaud (U.S. Patent No. 5,647,977).

Plester in view of Fermaglich is relied upon as set forth in reference to claim 1 above, wherein Plester discloses that the pressure relief valve 3 is a float control valve. Plester however, does not appear to disclose the detailed specifics of said float control valve. Arnaud discloses an apparatus for treating water wherein the pressure in a portion of the apparatus is controlled via a float control valve (column 2, lines 28-40; column 8, lines 62-68). The reference continues to disclose detailed specifics of the float control valve, wherein said valve is of the spring loaded type in order to properly maintain pressure in the apparatus while allowing gases to be discharged (column 9, lines 1-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a proper float control valve comprising a spring loaded type in the apparatus of Plester in order to properly maintain pressure in the apparatus while allowing gases to be discharged as exemplified by Arnaud.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN C. JOYNER whose telephone number is (571)272-2709. The examiner can normally be reached on M-F 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth L McKane/
Primary Examiner, Art Unit 1797

KCJ